SONY

3-751-491-21 (1)

FM/AM Cassette Car Stereo

XR-6087
XR-6287

Operating Instructions page 2

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

The model and serial numbers are located on the top of the unit. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____ Serial No. _____

Mode d'emploi page 18

Avant la mise en service de cet appareil, prière de lire attentivement ce mode d'emploi que l'on conservera pour toute référence ultérieure.

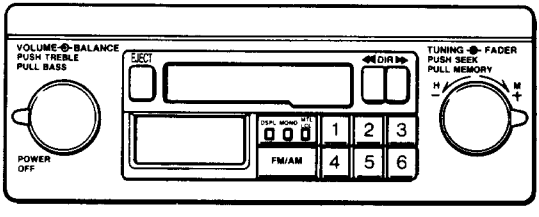

Illustration: XR-6087

For installation and connection, see the supplied installation/connections manual.

Pour l'installation et les connexions, se reporter au manuel d'installation/connexions.

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INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna
Relocate the equipment with respect to the receiver
Move the equipment away from the receiver
Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

English

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This instruction manual covers the XR-6087, and the XR-6287.
The main differences among these models are as follows:

	XR-6087	XR-6287
Dolby NR system	No	Yes
Automatic Music Sensor (AMS)	No	Yes
Preamplifier output	No	Yes
Loudness	No	Yes
Bass/treble tone control	Yes	Yes

Features

Tuner section
- SSIR (Sony Super Interference Rejection) PLL Synthesizer tuner.
- The quartz-locked digital synthesizer system permits easy and accurate tuning.
- Up to 12 FM and 6 AM stations can be preset.

Cassette deck section
- The auto-reverse function changes the tape direction automatically.
- Automatic Music Sensor (AMS) function locates the beginning of a selection (XR-6287).
- The Dolby NR system reduces tape hiss noise during playback (XR-6287).

Power amplifier section
- Preamplifier outputs for connecting a power amplifier for a powerful 4-speaker system (XR-6287).
- Fader control for playback with a 4-speaker system.
- Maximum power output of:
  —7.5 watts per channel (XR-6087)
  —25 watts per channel (XR-6287)

General
- The quartz controlled digital clock.

Precautions

- If your car was parked in direct sunlight and there was a considerable rise in temperature inside the car, allow the unit to cool off before operating.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers of a 2-speaker system, set the fader control to the center position.

Protection circuit
The built-in power amplifier employs a protection circuit to protect the speakers if the amplifier malfunctions. When a protection circuit activates, there will be an abrupt loss of sound from the speakers. Particularly, when a speaker with a low input impedance (less than 4 ohms) is connected to the unit, the sound will be discontinued. This, however, is not a problem. If this happens, turn the volume down a little.

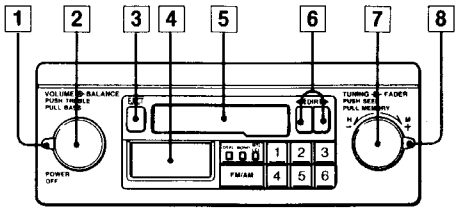
Cassette care
- This unit will automatically reverse the direction of the tape when it senses an entangled tape. If during playback the player should reverse the direction a number of times, the tape should be considerably damaged. In this case, remove the cassette.
- The use of cassettes longer than 90 minutes is not recommended.
- Be sure not to leave cassettes inside your car with the windows closed. Direct sunlight or extremely high temperature will warp cassette shells and cause the tape to stretch.
- Avoid touching the tape surface, as any dirt or dust on the tape will contaminate the heads of the player.
- Store the cassettes in their cases when not in use.

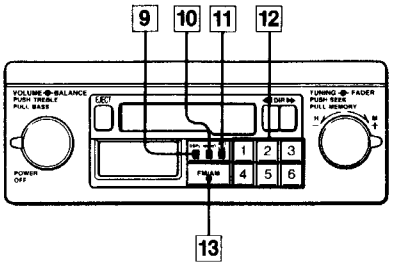
If you have any question or problem concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

Location and Function of Controls

Refer to the page in ● for details.

XR-6087





1 BALANCE control
Turn to adjust the balance of the left and right channel outputs.

2 POWER OFF (power on) switch/VOLUME/PUSH TREBLE/PULL BASS control

POWER ON/OFF switch	Turn clockwise to turn on the unit and then for more volume.
VOLUME control	
TREBLE control	Press and turn to adjust treble.
BASS control	Pull and turn to adjust bass.

3 EJECT button
Press to stop the tape and take out the cassette.

4 Display window

5 Cassette insertion door

6 ◀◀/▶▶ (fast winding) buttons/DIR (tape transport direction) change buttons
During playback, depress ◀◀ or ▶▶ for fast winding and press both ◀◀ and ▶▶ simultaneously to listen to the other side of the cassette.

7 TUNING knob/PUSH SEEK knob/PULL MEMORY knob

TUNING knob	Turn to manually tune in the desired station.
SEEK knob	Press for automatic tuning.
MEMORY knob	Pull to memorize the frequency of the station being received.

Use this knob also for clock setting. ●

8 FADER control
Turn clockwise to decrease the volume of the front speakers or counterclockwise to decrease the volume of the rear speakers.

9 DSPL (display) button
Press to display the time indication during radio reception.

10 MONO (monaural) button
Press to reduce noise during reception of a weak FM stereo program.
To restore to stereo, press it again.

11 MTL/LCL (metal/local) button

Operation mode	How to use
Tape playback	Press when listening to CrO_2 (TYPE II) or metal (TYPE IV) tapes. When listening to normal (TYPE I) tapes, press it again.
Radio reception	Press to eliminate interference from adjacent stations during reception of a comparatively strong station. To go back to the normal receiving sensitivity, press it again.

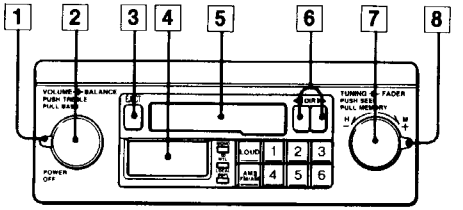
12 Preset number buttons

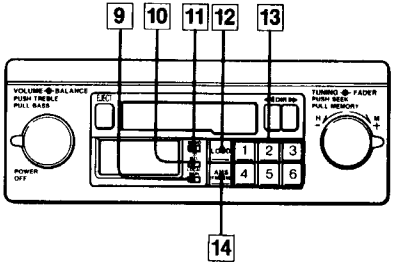
13 FM/AM (band select) button
Press to select a desired band, FM1, FM2 or AM.

Location and Function of Controls

Refer to the page in ● for details.

XR-6287





1 BALANCE control
Turn to adjust the balance of the left and right channel outputs.

2 POWER OFF (power on) switch/VOLUME/PUSH TREBLE/PULL BASS control

POWER ON/OFF switch	Turn clockwise to turn on the unit and then for more volume.
VOLUME control	
TREBLE control	Press and turn to adjust treble.
BASS control	Pull and turn to adjust bass.

3 EJECT button
Press to stop the tape and take out the cassette.

4 Display window

5 Cassette insertion door

6 ◀◀/▶▶ (fast winding) buttons/DIR (tape transport direction) change buttons
During playback, depress ◀◀ or ▶▶ for fast winding and press both ◀◀ and ▶▶ simultaneously to listen to the other side of the cassette.

7 TUNING knob/PUSH SEEK knob/PULL MEMORY knob

TUNING knob	Turn to manually tune in the desired station.
SEEK knob	Press for automatic tuning.
MEMORY knob	Pull to memorize the frequency of the station being received.

Use this knob also for clock setting. ●

8 FADER control
Turn clockwise to decrease the volume of the front speakers or counterclockwise to decrease the volume of the rear speakers.

9 DSPL (display) button
Press to display the time indication during radio reception.

10 MTL/LOCAL (metal/local) button

Operation mode	How to use
Tape playback	Press when listening to CrO_2 (TYPE II) or metal (TYPE IV) tapes. When listening to normal (TYPE I) tapes, press it again.
Radio reception	Press to eliminate interference from adjacent stations during reception of a comparatively strong station. To go back to the normal receiving sensitivity, press it again.

11 DD/MONO (Dolby noise reduction*/monaural) button

Operation mode	How to use
Tape playback	Press to activate Dolby NR system. To deactivate, press it again.
Radio reception	Press to reduce noise during reception of a weak FM stereo program. The sound will be monaural instead. To listen in stereo, press it again.

12 LOUD (loudness) button
Press to reinforce bass and treble especially when listening at low volume. To disengage the button, press it again.

13 Preset number buttons

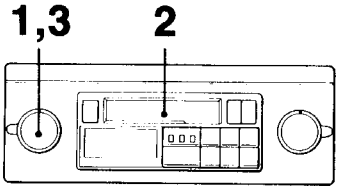
14 AMS (Automatic Music Sensor)/FM/AM (band select) button

Operation mode	How to use
Tape playback	Press to locate the beginning of the next selection or the selection being played.
Radio reception	Press to select a desired band.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

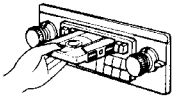
Tape Playback

Before inserting a cassette, take up any slack in the tape with a thick pencil.
The illustrations of the front panel in the following pages are of XR-6087.



1

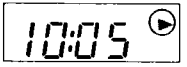
Turn clockwise to turn the power on.

2 
Insert a cassette.
Playback starts automatically.

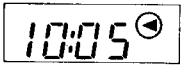
3

Adjust the volume.

Direction indicator



The side facing up is being played back.

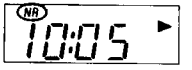


The side facing down is being played back.

To listen to the CrO_2 (TYPE II) or metal (TYPE IV) tapes
Press MTL/LCL. (XR-6087), MTL/LOCAL(XR-6287).

Press again to disengage.

To listen to Dolby NR-processed tapes (XR-6287)
Press MONO/ⅅⅅ.



Press again to disengage.

Dolby NR system reduces tape hiss noise in low-level, high-frequency signals. The system boosts these signals in recording and lowers them in playback. Therefore, the Dolby NR system must be engaged when you listen to tapes recorded with this system.

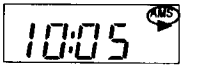
To listen to the other side of the cassette	Press ◀◀ and ▶▶ simultaneously.
To wind the tape rapidly	See table below.
To stop playback and listen to the radio	Press EJECT. The unit enters the radio mode.
To stop playback and turn off the unit	Press EJECT and turn the volume counterclockwise until it clicks.

Direction indicator	To advance	To rewind
▶	Depress ▶▶	Depress ◀◀
◀	Depress ◀◀	Depress ▶▶

To resume playback, press ◀◀ or ▶▶ lightly, which is not depressed.

To Locate the Beginning of a Selection —Automatic Music Sensor (XR-6287)

Press AMS and refer to the following table.

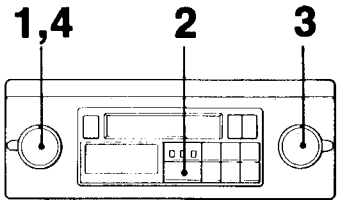


Direction indicator	To locate the beginning of the selection being played	To locate the beginning of the next selection
▶	Depress ◀◀	Depress ▶▶
◀	Depress ▶▶	Depress ◀◀

The desired selection cannot be located if...
- —there is noise in the space between selections
- —the space is less than 4 seconds long
- —the ▶▶ or ◀◀ button is pressed immediately before the beginning of the desired selection or after the beginning of the desired selection, or within the blank space

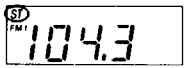
Playback or fast winding may begin in the middle of the selection when AMS is activated, as the followings are treated as blanks:
- —a long pause in the selection
- —a passage of low frequencies or very low volume
- —gradual increase or decrease of volume, as in some classical music

Automatic Tuning



1	POWER OFF	**Turn clockwise to turn the power on.**
2	AMS FM/AM (XR-6287) FM/AM (XR-6087)	**Press to select the desired band, FM (1 or 2) or AM.** Each time the button is pressed, the corresponding indicator appears in the display window.
3	TUNING	**Press PUSH SEEK.** Stations will be scanned automatically and scanning will stop when a station is tuned in. Repeat pressing the PUSH SEEK until the desired station is tuned in.
4	VOLUME	**Adjust the volume.**

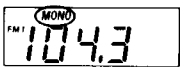
When an FM stereo program of sufficient signal strength is tuned in



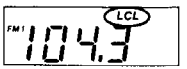
The ST indicator appears.

To play back the during radio reception
Insert a cassette. The radio is turned off and playback will begin automatically.

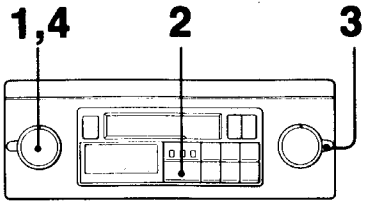
For improved reception
- To receive a weak FM stereo program, press MONO (XR-6087), MONO/ ◻◻ (XR-6287). The FM stereo program is received in monaural, but the noise will be reduced.
- To receive very strong FM/AM station or to receive an AM station at night, press MTL/LCL (XR-6087), MTL/LOCAL (XR-6287).



In this case, the ST indicator disappearrs.



Manual Tuning



1	POWER OFF	**Turn clockwise to turn the power on.**
2	AMS FM/AM (XR-6287) FM/AM (XR-6087)	**Press to select the desired band, FM (1 or 2) or AM.** Each time the button is pressed, the corresponding indicator appears.
3	TUNING — For lower frequency / For higher frequency	**Turn to tune in the desired station.**
4	VOLUME	**Adjust the volume.**

Warning
While driving, keep your eyes on the road and use the automatic tuning or the memory preset tuning!

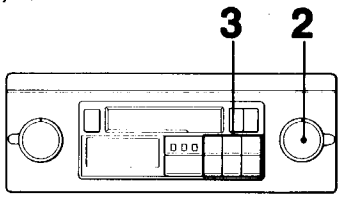
To display the time indication during radio reception
Press DSPL.

To restore the frequency indication, press it again.

Memory Preset Tuning

To Memorize Station Frequency

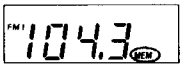
You can memorize a total of 18 stations (6 stations for each band), one on each preset number button in any order.



1 **Tune in a desired station** using automatic or manual tuning.

2 TUNING

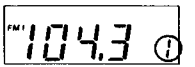
Pull out PULL MEMORY.



The MEM indicator appears.

3 1 ~ 6

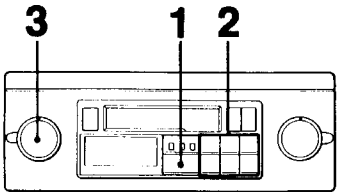
Press the desired preset number button while the MEM indicator is displayed.



The displayed frequency is memorized on the preset number button you have pressed.

Repeat steps 1 to 3 to preset all the desired stations.

To Tune in the Preset Station



1 AMS FM/AM (XR-6287) FM/AM (XR-6087)

Press to select the desired band.

2 1 ~ 6

Press the desired preset number button.

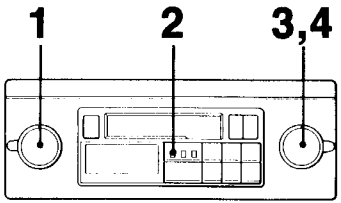
3 VOLUME

Adjust the volume.

Notes on memorizing

- The previously memorized station will be erased when you enter a new station of the same band on the same number preset button.
- The MEM indication appears for about 5 seconds. If it disappears before you press the preset number button, pull out PULL MEMORY again.

How to Set the Clock



1

Turn clockwise to turn the power on.

2 DSPL DSPL
(XR-6087) (XR-6287)
Press to display the time digits.

3

Turn to H while pulling out TUNING.
Set the hour digits.

4

Turn to M while pulling out TUNING.
Set the minute digits.

The digits are advanced in sequence. To advance them rapidly, keep TUNING turned while pulling it out.

When you set minute digits
"00" comes after "59". The hour digits do not change then.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

XR-6087
4 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 150 to 20,000 Hz with no more than 1.5% total harmonic distortion.

XR-6287
12 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 30 to 20,000 Hz with no more than 1% total harmonic distortion.

Other Specifications

Tuner section
FM

	XR-6087	XR-6287
Tuning range	87.9 - 107.9 MHz	
Antenna terminal	External antenna connector/Power antenna relay control lead	
Usable sensitivity	13 dBf (75 ohms)	12.5 dBf (75 ohms)
Selectivity	more than 70 dB at 400 kHz	
Signal-to-noise ratio	65 dB (stereo), 68 dB (monaural)	
Harmonic distortion at 1 kHz	0.9% (stereo), 0.5% (monaural)	
Separation	35 dB at 1 kHz	
Frequency response	30 - 15,000 Hz (±3 dB)	
Capture ratio	2.0 dB	

AM

	XR-6087	XR-6287
Tuning range	530 1,710 kHz	
Antenna terminal	External antenna connector/Power antenna relay control lead	
Sensitivity	32 μV	

Specifications

Cassette player section

	XR-6087	XR-6287
Tape track	4-track 2-channel stereo	
Frequency response	40 - 15,000 Hz	40 - 16,000Hz
Signal-to-noise ratio	55 dB with TYPE I cassettes 58 dB with TYPE II, IV cassettes	Dolby off 55 dB with TYPE I cassettes 58 dB with TYPE II, IV cassettes Dolby B 63 dB with TYPE I cassettes 66 dB with TYPE II, IV cassettes
Wow and flutter	0.13% (WRMS)	

Power amplifier section

	XR-6087	XR-6287
Outputs	Speaker outputs (sure seal connectors)	
Speaker impedance	4 - 8 ohms	
Maximum power output	7.5 W + 7.5 W (at 4 ohms)*	25 W + 25 W (at 4 ohms)*

* Measured at 14.4 V

General

	XR-6087	XR-6287
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz	
Loudness	—	+10 dB at 100 Hz +6 dB at 10 kHz
Output connector	Ground wire terminal	Preamplifier output jacks (OUTPUT) Ground wire terminal
Power requirements	12 V DC car battery (negative ground)	
Mounting dimensions	178 × 50 × 125 mm (w/h/d) (7 1/8 × 2 × 5 inches)	
Weight	1.3 kg (2 lb 14 oz)	1.4 kg (3 lb 1 oz)
Accessories supplied	Mounting hardware (1 set)	
Output lead	Power antenna relay control lead	

Design and specifications subject to change without notice.